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ABSTRACT

Due to the expansion of cooperative education programs, critical issues facing them were examined. The issues as perceived by cooperative education directors were identified, along with their relative importance as perceived by directors and their immediate supervisors. The study aimed to determine whether differences exist between directors and their supervisors, between two- and four-year college directors, and among directors in the six regions of the United States. Separate research questionnaires were used for each of the two reference groups to ascertain directors' background (title, years in position, gender, age, institutional type, and name of immediate supervisor), as well as attitudes toward issues. A panel of expert judges refined the issues list, and a Likert-type scale was developed for the refined list of 55 issue statements. A second issues questionnaire was then administered to the supervisors and compared with the findings from the survey of directors. Conclusions include the following: a majority of directors expressed concern for maintaining the quality of cooperative education work assignments with an increasing number of institutions and students participating; the why and how of awarding and applying cooperative education credit is a very important issue; one factor scale, "Organizational Placement and Institutional Integration," showed differences between the co-op directors and their supervisors; the design of the cooperative education experience and award of credit is perceived as more important on the two-year college level; and there seem to be no discernible differences among regions. Among the suggestions for further study are: causes for the low proportion of female directors, cost effective methods, planning elements that increase the potential for success, and benefits of faculty involvement. Appendices include the director's and supervisor's issues questionnaires and a list of the panel of experts. (IC)

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ISSUES FACING COOPERATIVE EDUCATION IN INSTITUTIONS OF HIGHER EDUCATION IN THE UNITED STATES

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DR. WILLIAM A. STULL, PROJECT DIRECTOR
UTAH STATE UNIVERSITY, SEPTEMBER, 1980

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THE IDENTIFICATION AND ANALYSIS OF ISSUES FACING HIGHER EDUCATION COOPERATIVE EDUCATION IN THE UNITED STATES

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COOPERATIVE EDUCATION ISSUES

Introduction

A wide diversity exists among cooperative education directors in terms of their educational and occupational backgrounds (Stull, 1978). The rapid growth of cooperative education programs has increased the number of new personnel and institutions involved in the cooperative education process. The expansion of cooperative education programs coupled with the additions and diversity of new personnel has contributed to the emergence of a variety of issues facing this field. The identification of these issues and perceptions of their importance by cooperative education personnel is a necessary step in future planning for effective cooperative education programs.

Need for the Study

A comprehensive review of the higher education cooperative education literature revealed that only one research study has been completed relating to the issues that those in cooperative education believe are of importance. That study, entitled "Historical Antecedents to Contemporary Issues in Cooperative Education in the Community Colleges of California" (Peterson, 1975) provided a historical analysis

of cooperative education issues in California's community colleges. Another, nonemperical article (David, 1971), offered opinions concerning the prospects and pitfalls facing higher education cooperative education. However, in the business and distributive education fields, numerous research studies have been completed dealing with the identification of issues. Examples include Hauna (1939), Hayden (1950), Brown (1958), Warmke (1960, Gratz (1961), Nye (1967), Weatherford (1974), and Reece (1971). These studies did not specifically identify issues in cooperative education.

The apparent lack of research concerning the issues of higher education cooperative education was confirmed in a telephone interview with Dr. James Wilson (1978), professor of Cooperative Education at Northeastern University. The growth in the number of personnel involved in cooperative education with their varied backgrounds, high turnover of personnel in the field, and expansion in number of programs, coupled with the lack of empirical evidence, substantiate the need for this study. The identification, quantification, and analysis of issues facing higher education cooperative education should assist in providing a focus and direction to cooperative education and contribute to the growing body of knowledge in this field.

Purposes of the Study

This research study dealt with identification of the critical issues facing cooperative education and the determination of the importance of these issues to cooperative education program directors and to their immediate supervisors. The primary purposes of this study were:

1. To identify the critical issues facing higher education cooperative education as perceived by cooperative education directors.
2. To determine the relative importance of these issues as perceived by cooperative education directors and their immediate supervisors.
3. To determine if differences exist between directors and their supervisors in terms of their perceptions of the importance of these critical issues.
4. To determine if differences exist between two- and four-year college directors in terms of the perception of the importance of the critical issues.
5. To determine if differences exist between directors among the six regions in the United States in their perception of the importance of the critical issues

Procedures

Research Questionnaire

To accomplish the purposes of this study, a separate research questionnaire was designed for use with each of the two reference groups.

The first of these questionnaires (Appendix A) administered to cooperative education directors was divided into

two parts. Part A was constructed to ascertain the background of the cooperative education director and contained six items. These background questions included the directors exact title, years served in present position, gender, age, type of institution, and the name and title of the director's immediate supervisor. This last item was used to identify the appropriate sampling frame for the administration of the supervisor's questionnaire.

Part B was developed, first by identifying the potential issues facing the field of cooperative education. The identification and verification of these issues occurred in two phases. In phase one, an extensive review of cooperative education literature was made to identify those issues noted by authors of articles in the last ten years of the Journal of Cooperative Education, books in the field, United States Office of Education funded cooperative education project reports, and relevant doctoral dissertations. In addition, telephone interviews were conducted with selected cooperative education directors at two- and four-year institutions throughout the United States within each of the six geographic regions represented.

In phase two, a panel of expert judges (Appendix C) was used to refine the extensive issue list developed in phase one. Additional critical issue statements were sought from the expert panel of judges. The judges provided

suggestions to clarify the issue statements, and made other suggestions regarding items in part A and the overall understandability of the questionnaire.

After revision of the issue statements and part A of the questionnaire, a Likert type scale was developed for the refined list of 55 issue statements. The scale contained five response categories using the following scale: 1 = no importance, 2 = little importance, 3 = important, 4 = very important, 5 = critical. Respondents were asked to select one of the five categories which most accurately reflected their perceived importance of the issue.

A second questionnaire (Appendix B) was designed for administration to the cooperative education director's immediate supervisor. This questionnaire was the same as part B of the directors questionnaire and was printed on blue paper for ease of administration. Thus both cooperative education directors and their immediate supervisors were requested to respond to their perception of the importance of each of the 55 issue statements. As a result, a comparison between cooperative education directors and their immediate supervisors was made possible.

Subjects and Sampling Procedures

Two reference groups were used to determine the importance of the issues facing cooperative education:

(1) Cooperative education directors, and (2) their immediate supervisors. The subjects for this study were drawn from the 1016 institutions of higher education identified in the 1979 mailing list provided by the Research Center of Northeastern University. This sampling frame consisted of 455 two-year and 561 four-year institutions of higher education identified in this same listing. A 22 percent primary and 10 percent alternate random sample was simultaneously drawn from each of the six regions (Appendix A) using a Burroughs B6700 computer. The samples were stratified by level of program (two-year and four-year) and by geographical region to ensure proportionate representation.

Each director identified in the sampling frame was assigned a six-digit code number. The first digit (1-6) identified the region. The second digit (2 or 4) identified the institution by type (two- or four-year). The first two digits were assigned by correlating the institution's name on the sampling frame with the information contained in the Education Directory, Colleges and Universities 1977-78. The remaining four digits (0000-1016) were assigned in order as they appeared in the sampling frame. Thus, the computer was able to stratify and randomly draw the primary and alternate sample based upon the assigned identification numbers.

The primary (22 percent) sample was carefully examined for representativeness. Primary sample subjects were eliminated from the primary sample and replaced with a random

selection from the secondary sample for the following reasons:

1. Mailing label did not bear the name or a title closely related to cooperative education director.
2. Institutions who were known to have discontinued their cooperative education programs.

A total of 63 primary sample subjects were eliminated and replaced from the secondary sample.

Collection of the Data and Follow-up

A mail questionnaire was used to collect the data for this study. To ensure a maximum return of the questionnaire a follow-up postcard and a second follow-up letter and questionnaire were sent to nonrespondents. Finally, a telephone call was made to all nonrespondents.

Statistical Analysis

Appropriate descriptive and inferential statistical techniques were used in this study. By purpose these techniques included:

Purpose	Statistical Techniques
1.	Descriptive statistics using frequency distributions.
2.	The 55 issue statements were reduced to five factor scales via factor analysis and the internal consistency of the factor scales was calculated using Cronbach's Alpha.
3.	T-test for mean differences between director's and supervisor's perceptions of the importance of each of the five factor scales and each of the 55 issue statements. The coefficient of concordance was applied to determine the extent of agreement on the 55 issue statement mean rankings by directors and supervisors.

Purpose	Statistical Techniques
4	T-test for mean differences between two- and four-year college director's perceptions of the importance of each factor scale and each issue.
5	One-way analysis of variance among director's responses for the six geographical regions in the United States on each factor scale and each issue.

Questionnaire Returns

Directors

Table 1 shows that of the 221 directors surveyed, 177 or 80.0 percent of the respondents returned useable questionnaires. This represented an 81.3 percent return for four-year colleges and an 80.0 percent return for two-year colleges.

Table 1. Returns of directors

Region	Number of directors Surveyed	Number of returns	Percentage of returns
Four-year colleges and universities			
1	19	13	68.4
2	20	15	75.0
3	10	10	100.0
4	23	18	78.3
5	42	35	83.3
6	9	9	100.0
Subtotals	123	100	81.3
Two-year colleges			
1	12	10	83.3
2	14	12	85.7
3	8	7	87.5
4	22	17	77.3
5	25	18	72.0
6	17	13	76.5
Subtotals	98	77	78.6
Totals	221	177	80.0

Director's Supervisors

Table 2 shows that of the 167 supervisors surveyed, 133 or 79.6 percent returned useable questionnaires. This represented a 75.8 percent return for four-year colleges and an 84.2 percent return for two-year colleges.[1]

Table 2. Returns of director's immediate supervisors

Region	Number of supervisors surveyed	Number of returns	Percentage of returns
Four-year colleges and universities			
1	13	8	61.5
2	14	10	71.4
3	10	9	90.0
4	15	13	86.7
5	31	21	67.7
6	8	8	100.0
Subtotals	91	69	75.8
Two-year colleges			
1	8	6	75.0
2	12	10	83.3
3	7	6	85.7
4	18	12	66.7
5	18	18	100.0
6	13	12	92.3
Subtotals	76	64	84.2
Total	167	133	79.6

[1]The reader will note that the N of 167 supervisors is less than 177 returned directors' questionnaires due to receiving 10 directors' questionnaires too late for the supervisor's mailing.

Characteristics of the Directors in the Sample

Part A (items 1-6) of the questionnaire was designed to obtain background information on the responding directors. Item one asked for the directors exact title and responses were used for a confirmation of the status of the respondent. Item six asked the name and title of the directors immediate supervisor, which was used for the supervisors questionnaire mailing. For reporting purposes, information on items 2-5 is presented according to each item collected.

Years in Present Position

Table 3 indicates how long co-op directors have been in their position. The results show 38.4 percent of the co-op directors have held their position from 1-3 years, while 27.1 percent have been in their present position from 4-6 years. The mean years-in-position ($\bar{x}$ = 2.602) of all respondents was between response category 2 (1-3 years) and 3 (4-6 years). Overall, there appeared to be a broad distribution of years-in-position with 83 respondents indicating four or more years in position as co-op director.

Table 3. Years-in-position as co-op director

	Code	Absolute Frequency	Relative Frequency (PCT)	Adjusted Frequency (PCT)	Cum. Freq. (PCT)
Less than one year	1.	26	14.7	14.8	14.8
1-3 years	2.	68	38.4	38.6	53.4
4-6 years	3.	48	27.1	27.3	80.7
7-9 years	4.	18	10.2	10.2	90.9
10 years or more	5.	16	9.0	9.1	100.0
	0.	1	0.6	missing	100.0
Total		177	100.0	100.0	

Directors Gender

The majority (74.6 percent) of two- and four-year directors were male; 25.4 percent were female. Table 4 shows the distribution of gender of cooperative education director respondents.

Table 4. Gender of co-op directors

Gender	Code	Absolute Frequency	Relative Frequency (PCT	Adjusted Frequency (PCT	Cum. Freq. (PCT)
Female	1.	45	25.4	25.4	25.4
Male	2.	132	74.6	74.6	100.0
Total		177	100.0	100.0	

Directors Age

Table 5 reveals a bi-modal frequency grouping of age groups of 33-39 years and 40-46 years. Each group represents 23.7 percent of the respondents. The mean age group was 40-46 years of age.

Table 5. Age of co-op director

Age of Director	Code	Absolute Frequency	Relative Frequency (PCT)	Adjusted Frequency (PCT)	Cum. Freq. (PCT)
25 or under	1.	2	1.1	1.1	1.1
26-32	2.	25	14.1	14.4	15.5
33-39	3.	42	23.7	24.1	39.7
40-46	4.	42	23.7	24.1	63.8
47-53	5.	34	19.2	19.5	83.3
54-60	6.	14	7.0	8.0	91.4
60 or above	7.	15	8.5	8.6	100.0
	0.	3	1.7	missing	100.0
Total		177	100.0	100.0	

Type of Institution

Table 6 shows the distribution of public or private, two- and four-year institutions from which the co-op directors responded. The predominant type of college was the two-year public college representing 41.8 percent of the sample. A total of six, or 3.4 percent, who did not respond to this item, checked the "other" category.

Table 6. Type of institution

	Code	Absolute Frequency	Relative Frequency (PCT)	Adjusted Frequency (PCT)	Cum. Freq. (PCT)
two-year public college	1.	74	41.8	41.8	41.8
two-year private college	2.	4	2.3	2.3	44.1
four-year public college	3.	56	31.6	31.6	75.7
four-year private college	4.	37	20.9	20.9	96.6
other	5.	6	3.4	3.4	100.0
Total		177	100.0	100.0	

Findings of the Study

Purpose 1: To identify the critical issues facing higher education cooperative education as perceived by cooperative education directors.

Part B (Issue Statements) of the questionnaire was identified by the following process:

1. An extensive literature review was conducted to identify the major issues referred to by authorities in the field. The Journal of Cooperative Education was reviewed from the issue of November 1970 volume 7 number 1, through the issue of Spring 1979 volume 15 number 3. Books on cooperative education were reviewed including Handbook of Cooperative Education, by Asa S. Knowles and

Associates, 1971; Cooperative Education, by Ronald W. Stadt and Bill G. Gooch, 1977; Cooperative Education in Community Colleges, by Barry Heerman, 1973. United States Office of Education funded cooperative education project reports were also reviewed.

2. Telephone interviews were conducted with twenty selected leaders in the field of cooperative education to identify current issues as perceived by these leaders.

3. As a result of the literature reviews and telephone interviews, 71 potential issues were identified. These potential issues were submitted to an expert panel for critical review.

4. A questionnaire was developed which included 55 issues in cooperative education. The 55 issue statements reflect a synthesis of the critical reviews by the expert panel.

The questionnaire was administered to the random sample of cooperative education directors who provided the information necessary to address this purpose. Respondents were requested to indicate the importance of each of the 55 issues. The rating scale for each issue contained five response categories (1) No Importance, (2) Little Importance, (3) Important, (4) Very Important, and (5) Critical. Thus, it was possible to determine the arithmetic mean of importance for each issue statement for the responding directors as a group.

For descriptive purposes, these means were ranked from 1 through 55 with a ranking of 1 assigned to the issue with the greatest amount of importance and 55 to the issue with the least amount of importance.

Findings for the director's responses to the 55 issue statements are presented in tabular form below. Table 7 gives the issue statement number in Part B of the questionnaire, rank and mean for 55 issue statements as reported by directors.

Table 7. Issue statement rank, issue statement, and mean for 55 issue statements as reported by directors

Rank	Statement Number	Issue Statement	Mean
1	13	The best techniques of developing institutional commitment in terms of administrative, faculty, staff, and financial support	4.200
2	52	The extent to which cooperative education is accepted as a valid mode of study, on par with academic study	4.120
3	30	Determining the proper amount of structure which should be built into students' co-op experience in order to insure that they have meaningful learning experiences	4.046
4	12	Maintaining the quality of cooperative education work assignments with an increasing number of institutions and students participating	4.011
5.5	28	The desirability of offering academic credit for students' cooperative education experiences	4.006
5.5	48	Developing cooperative education programs which can become cost-effective in the financial structure of the institution	4.006

Table 7. Continued

Rank	Statement Number	Issue Statement	Mean
7	44	The best techniques of internalizing and integrating cooperative education into the philosophies and curriculums of institutions of higher education	3.949
8	7	The responsibility of the college or university in preparing the co-op student for his or her initial cooperative education assignment	3.886
9	29	If academic credit is offered, determining the proper amount to be granted and the basis for assigning this credit	3.874
10	5	The extent to which the philosophy of cooperative education integrates or conflicts with other educational philosophies of the institution	3.839
11	38	If academic credit is granted for cooperative education, whether this credit should be used toward graduation, or as an add-on to the graduation requirements	3.771
12	39	If faculty are involved, whether their load determination should be calculated as part of their regular load or as an overload, or on some other basis	3.759
13	31	The best system of distributing federal funds so as to have the most meaningful impact on the development of cooperative education programs	3.751
14	19	The impact of federal (Title VIII) funding in terms of the development and meaningful growth of cooperative education programs	3.744
15	49	The level in the institutional administrative hierarchy where the person responsible for co-op should report	3.737

Table 7. Continued

Rank	Statement Number	Issue Statement	Mean
16	8	The inclusion of the cooperative education professional staff in the faculty ranking, tenure, and promotion system	3.726
17	37	The best techniques of improving the quality of individuals responsible for managing cooperative education programs	3.699
18	22	The extent to which the high turn-over of cooperative education personnel has impact on the success of cooperative education programs	3.676
19	18	The extent to which cooperative education is a viable instructional strategy for use in liberal arts and other nontechnical programs	3.672
20	55	The extent to which there is clarity of role definition among directors, coordinators, and faculty in cooperative education programs	3.663
21	54	The extent to which the alternating co-op calendar affects curricular design and course scheduling	3.659
22	4	The extent to which the degree of co-op calendar affects curricular design and course scheduling	3.645
23	27	The location of the cooperative education office in the institutional organizational structure. (Academic affairs/student personnel services)	3.611
24	3	The trend towards the merger of cooperative education and placement services in colleges and universities	3.609
25	15	The role played by cooperative education in serving the needs of the socially and economically disadvantaged student	3.560

Table 7. Continued

Rank	Statement Number	Issue Statement	Mean
26.5	24	The extent to which cooperative education can serve the "older" and "second-degree" students who are expected to comprise an increasingly larger percentage of the college population	3.506
26.5	45	The use of FTE's (full-time equivalent students) as an internal funding source for cooperative education	3.506
28	1	The extent to which regular faculty members with assignments in teaching and/or research can be effective serving as coordinators in the cooperative education program	3.491
29	43	The desirability of having more financial support from the federal level in cooperative education	3.489
30	11	The impact of state and federal employment regulations on the development and implementation of cooperative education programs	3.477
31	2	The current proposal evaluation process followed by the United States Office of Education which allows outside readers to make the major funding decisions	3.455
32	10	The best methods of coordination, and the frequency of employer visitations necessary for a "long distance" cooperative education program	3.412
33.5	17	The problems associated with the transferability of cooperative education credit from the two-year college level to the four-year college or university level	3.406
33.5	34	The desirability of the college work study program and the cooperative education activity operating more closely together in the future	3.406

Table 7. Continued

Rank	Statement Number	Issue Statement	Mean
35	9	The quantity and quality of research in the field of cooperative education	3.366
36	21	The extent to which the cooperative education office should be responsible for the majority of the student placements in the cooperative education program. (Student developed versus co-op office developed positions)	3.358
37	26	The extent to which cooperative education should be limited to those students who have definitive career plans or open to all regardless of their status in the career development process	3.345
38	42	If faculty are actively involved in the coordination phase of the program, whether the cost of program operation is prohibitive to this involvement	3.335
39	47	The five year limitation to Title VIII USOE funding for cooperative education programs	3.297
40	32	The extent to which the federally funded co-op training centers are responsive to the needs of new personnel moving into cooperative education	3.291
41	46	The quality of leadership provided by the United States Office of Education	3.276
42	51	The use by the USOE (United States Office of Education) of weighted criteria in the proposal process to determine who receives Title VIII funding	3.265
43	16	The desirability of defining cooperative education to include experiential education, internship programs, field education, etc.	3.246

Table 7. Continued

Rank	Statement Number	Issue Statement	Mean
44	25	The relationship which should exist between cooperative programs operated at the secondary school, community college/technical college, and four-year college levels	3.223
45	53	The extent to which non-paid volunteer work experiences should be considered as part of cooperative education	3.207
46	33	The extent to which the federally funded co-op training centers are responsive to the needs of experienced personnel in the field	3.198
47	6	The role played by cooperative education in serving the needs of the physically handicapped student	3.166
48	23	The desirability of training and certifying selected individuals who would be available to evaluate cooperative education programs	3.126
49	40	The role played by the National Commission for Cooperative Education in terms of national leadership for cooperative education	3.121
50	35	The role played by the CEA (Cooperative Education Association) as one of the national professional organizations for cooperative education personnel	3.115
51	36	The type of co-op calendars followed (i.e. alternating, extended day, field experience, parallel) by colleges and universities	3.040

Table 7. Continued

Rank	Statement Number	Issue Statement	Mean
52	41	The extent to which federal funding (Title VIII) should move to the large urban based institution	3.000
53	14	The desirability of establishing national standards for the accountability of cooperative education programs	2.943
54	20	The extent to which cooperative education is a viable instructional methodology for use in graduate programs	2.918
55	50	The desirability of institutions of higher education responding to the increased need for qualified cooperative education personnel by establishing bachelors' and graduate programs in cooperative education	2.787

Purpose 2: To determine the relative importance of these issues as perceived by cooperative education directors and their supervisors.

The questionnaire completed by the two reference groups (co-op directors and supervisors) contained 55 issue statements related to cooperative education. Both respondent groups were requested to respond to each of the 55 issue statements on the questionnaire. Findings for both directors and their supervisors are shown together in Table 8. This Table gives the complete issue statement, it's number from the questionnaire, means, standard deviations, and rank order of the means for the 55 issue statements.

Table 8. Means, standard deviations, and rank by reference group of 55 issue statements

Group and Issue Statements	Mean	SD	Rank
Statement 1:	The extent to which regular faculty members with assignments in teaching and/or research can be effective serving as coordinators in the cooperative education program		
Directors	3.491	1.061	28
Supervisors	3.689	0.997	12
Statement 2:	The current proposal evaluation process followed by the United States Office of Education which allows outside readers to make the major funding decisions.		
Directors	3.455	1.101	31
Supervisors	3.458	1.032	29
Statement 3:	The trend towards the merger of cooperative education and placement services in colleges and universities.		
Directors	3.609	1.079	24
Supervisors	3.598	0.980	21
Statement 4:	The extent to which the degree of co-op program centralization or decentralization impacts on the development of viable cooperative education programs.		
Directors	3.645	1.052	22
Supervisors	3.438	1.148	30

Table 8. Continued

Group and Issue Statements	Mean	SD	Rank
Statement 5: The extent to which the philosophy of cooperative education integrates or conflicts with other educational philosophies of the institution.			
Directors	3.839	1.090	10
Supervisors	3.985	1.004	6
Statement 6: The role played by cooperative education in serving the needs of the physically handicapped student.			
Directors	3.166	1.023	47
Supervisors	3.265	0.924	38
Statement 7: The responsibility of the college or university in preparing the co-op student for his or her initial cooperative education assignment.			
Directors	3.886	0.823	8
Supervisors	4.045	0.837	3
Statement 8: The inclusion of the cooperative education professional staff in the faculty ranking, tenure, and promotion system.			
Directors	3.726	1.096	16
Supervisors	3.285	1.228	37
Statement 9: The quantity and quality of research in the field of cooperative education.			
Directors	3.366	0.930	35
Supervisors	3.189	0.942	40
Statement 10: The best methods of coordination, and the frequency of employer visitations necessary for a "long distance" cooperative education program.			
Directors	3.412	1.047	32
Supervisors	3.500	0.895	25

Table 8. Continued

Group and Issue Statements	Mean	SD	Rank
Statement 11: The impact of state and federal employment regulations on the development and implementation of cooperative education programs.			
Directors	3.477	0.948	30
Supervisors	3.603	1.035	20
Statement 12: Maintaining the quality of cooperative education work assignments with an increasing number of institutions and students participating.			
Directors	4.011	0.916	4
Supervisors	4.038	0.820	4
Statement 13: The best techniques of developing institutional commitment in terms of administrative, faculty, staff, and financial support.			
Directors	4.200	0.830	1
Supervisors	4.046	0.812	2
Statement 14: The desirability of establishing national standards for the accountability of cooperative education programs.			
Directors	2.943	1.030	53
Supervisors	2.692	1.136	54
Statement 15: The role played by cooperative education in serving the needs of the socially and economically disadvantaged student.			
Directors	3.560	0.962	25
Supervisors	3.620	0.945	18
Statement 16: The desirability of defining cooperative education to include experiential education, internship programs, field education, etc.			
Directors	3.246	1.279	43
Supervisors	3.372	1.193	34

Table 8. Continued

Group and Issue Statements	Mean	SD	Rank
Statement 17: The problems associated with the transferability of cooperative education credit from the two-year college level to the four-year college or university level.			
Directors	3.406	1.155	33.5
Supervisors	3.515	1.051	23
Statement 18: The extent to which cooperative education is a viable instructional strategy for use in liberal arts and other nontechnical programs.			
Directors	3.672	0.969	19
Supervisors	3.638	1.012	16
Statement 19: The impact of federal (Title VIII) funding in terms of the development and meaningful growth of cooperative education programs.			
Directors	3.744	1.100	14
Supervisors	3.615	1.116	19
Statement 20: The extent to which cooperative education is a viable instructional methodology for use in graduate programs.			
Directors	2.918	1.079	54
Supervisors	2.890	1.190	36
Statement 21: The extent to which the cooperative education office should be responsible for the majority of the student placements in the cooperative education program. (Student developed versus co-op office developed positions.)			
Directors	3.358	1.022	36
Supervisors	3.462	0.925	28
Statement 22: The extent to which the high turn-over of cooperative education personnel has impact on the success of cooperative education programs.			
Directors	3.676	1.089	18
Supervisors	3.477	0.958	27

Table 8. Continued

Group and Issue Statements	Mean	SD	Rank
Statement 23: The desirability of training and certifying selected individuals who would be available to evaluate cooperative education programs.			
Directors	3.126	1.079	48
Supervisors	3.171	0.953	42
Statement 24: The extent to which cooperative education can serve the "older" and "second-degree" students who are expected to comprise an increasingly larger percentage of the college population.			
Directors	3.506	1.035	26.5
Supervisors	3.531	0.942	22
Statement 25: The relationship which should exist between cooperative programs operated at the secondary school, community college/technical college, and four-year college levels.			
Directors	3.223	1.089	44
Supervisors	3.238	1.040	39
Statement 26: The extent to which cooperative education should be limited to those students who have definitive career plans or open to all regardless of their status in the career development process.			
Directors	3.345	1.103	37
Supervisors	3.102	1.149	47
Statement 27: The location of the cooperative education office in the institutional organizational structure. (Academic affairs/student personnel services)			
Directors	3.611	1.139	23
Supervisors	3.392	1.117	33
Statement 28: The desirability of offering academic credit for students' cooperative education experiences.			
Directors	4.006	1.026	5.5
Supervisors	3.892	1.058	8

Table 8. Continued

Group and Issue Statements	Mean	SD	Rank
Statement 29: If academic credit is offered, determining the proper amount to be granted and the basis for assigning this credit.			
Directors	3.874	0.922	9
Supervisors	4.000	0.835	5
Statement 30: Determining the proper amount of structure which should be built into students' co-op experience in order to insure that they have meaningful learning experiences.			
Directors	4.046	0.712	3
Supervisors	3.962	0.811	7
Statement 31: The best system of distributing federal funds so as to have the most meaningful impact on the development of cooperative education programs.			
Directors	3.751	1.085	13
Supervisors	3.636	1.068	17
Statement 32: The extent to which the federally funded co-op training centers are responsive to the needs of new personnel moving into cooperative education.			
Directors	3.291	1.069	40
Supervisors	3.180	1.023	41
Statement 33: The extent to which the federally funded co-op training centers are responsive to the needs of experienced personnel in the field.			
Directors	3.198	1.112	46
Supervisors	3.039	1.011	49
Statement 34: The desirability of the college work study program and the cooperative education activity operating more closely together in the future.			
Directors	3.406	1.165	33.5
Supervisors	3.336	1.145	35

Table 8. Continued

Group and Issue Statements	Mean	SD	Rank
Statement 35: The role played by the CEA (Cooperative Education Association) as one of the national professional organizations for cooperative education personnel.			
Directors	3.116	1.069	50
Supervisors	2.906	1.023	51
Statement 36: The type of co-op calendars followed (i.e. alternating, extended day, field experience, parallel) by colleges and universities.			
Directors	3.040	1.039	51
Supervisors	3.114	1.039	44
Statement 37: The best techniques of improving the quality of individuals responsible for managing cooperative education programs.			
Directors	3.699	0.808	17
Supervisors	3.669	0.820	13.5
Statement 38: If academic credit is granted for cooperative education, whether this credit should be used toward graduation, or as an add-on to the graduation requirements.			
Directors	3.771	1.101	11
Supervisors	3.620	1.058	15
Statement 39: If faculty are involved, whether their load determination should be calculated as part of their regular load or as an overload, or on some other basis.			
Directors	3.759	0.979	12
Supervisors	3.763	1.066	11
Statement 40: The role played by the National Commission for Cooperative Education in terms of national leadership for cooperative education.			
Directors	3.121	1.119	49
Supervisors	2.832	1.046	53

Table 8. Continued

Group and Issue Statements	Mean	SD	Rank
Statement 41: The extent to which federal funding (Title VIII) should move to the large urban based institution.			
Directors	3.000	1.323	52
Supervisors	3.153	1.344	43
Statement 42: If faculty are actively involved in the coordination phase of the program, whether the cost of program operation is prohibitive to this involvement.			
Directors	3.335	0.935	38
Supervisors	3.408	1.009	32
Statement 43: The desirability of having more financial support from the federal level in cooperative education.			
Directors	3.489	1.186	29
Supervisors	3.508	1.150	24
Statement 44: The best techniques of internalizing and integrating cooperative education into the philosophies and curriculums of institutions of higher education.			
Directors	3.949	0.866	7
Supervisors	3.868	0.990	9
Statement 45: The use of FTE's (full-time equivalent students) as an internal funding source for cooperative education.			
Directors	3.406	1.137	53
Supervisors	3.413	1.208	31
Statement 46: The quality of leadership provided by the United States Office of Education.			
Directors	3.276	1.175	41
Supervisors	2.977	1.229	50

Table 8. Continued

Group and Issue Statements	Mean	SD	Rank
Statement 47: The five year limitation to Title VIII USOE funding for cooperative education programs.			
Directors	3.297	1.238	39
Supervisors	3.109	1.335	46
Statement 48: Developing cooperative education programs which can become cost-effective in the financial structure of the institution.			
Directors	4.006	0.932	5.5
Supervisors	4.076	0.847	1
Statement 49: The level in the institutional administrative hierarchy where the person responsible for co-op should report.			
Directors	3.737	0.994	15
Supervisors	3.496	1.033	26
Statement 50: The desirability of institutions of higher education responding to the increased need for qualified cooperative education personnel by establishing bachelors' and graduate programs in cooperative education.			
Directors	2.787	1.125	55
Supervisors	2.595	1.101	55
Statement 51: The use by the USOE (United States Office of Education) of weighted criteria in the proposal process to determine who receives Title VIII funding.			
Directors	3.265	1.112	42
Supervisors	3.110	1.063	45
Statement 52: The extent to which cooperative education is accepted as a valid mode of study, on par with academic study.			
Directors	4.120	0.930	2
Supervisors	3.845	1.027	10

Table 8. Continued

Group and Issue Statements	Mean	SD	Rank
Statement 53: The extent to which non-paid volunteer work experiences should be considered as part of cooperative education.			
Directors	3.207	1.203	34.5
Supervisors	3.085	1.121	48
Statement 54: The extent to which the alternating co-op calendar affects curricular design and course scheduling.			
Directors	3.659	1.048	21
Supervisors	3.313	1.177	36
Statement 55: The extent to which there is clarity of role definition among directors, coordinators, and faculty in cooperative education programs.			
Directors	3.663	1.020	20
Supervisors	3.669	0.999	13.5

It is noteworthy among directors that of the 55 issue statements, that only three (numbers 14, 20, and 50) were evaluated by directors as falling below a mean score of 3 (important).

Statement Number	Statement	Mean
14	The desirability of establishing national standards for the accountability of cooperative education	2.943
20	The extent to which comparative education is a viable instructional methodology for use in graduate programs	2.918
50	The desirability of institutions of higher education responding to the increased need for qualified cooperative education personnel by establishing bachelors' and graduate programs in cooperative education	2.787

The remaining 52 issue statements (95 percent) were rated by directors as higher than the response category of 3 (important).

A similar pattern existed for the directors' supervisors with six issue statements (numbers 14, 20, 35, 40, 46, and 50) having overall means which fell below 3 (important).

Statement Number	Statement	Mean
14	The desirability of establishing national standards for the accountability of cooperative education	2.692
20	The extent to which comparative education is a viable instructional methodology for use in graduate programs	2.890

Statement Number	Statement	Mean
35	The role played by the CEA (Cooperative Education Association) as one of the national professional organizations for cooperative education personnel	2.906
40	The role played by the National Commission for Cooperative Education in terms of national leadership for cooperative education	2.832
46	The quality of leadership provided by the United States Office of Education	2.977
50	The desirability of institutions of higher education responding to the increased need for qualified cooperative education personnel by establishing bachelors' and graduate programs in cooperative education	2.595

The remaining 49 issue statements (89 percent) were evaluated by the directors' supervisors as exceeding important with a mean response of 3 (important) or higher.

Examination of the data revealed a relatively large standard deviation for responses with a range from a low of .712 to a high of 1.344. The researcher examined the issue statements which revealed similarities in broad categories to which groups of issues appeared affiliated. The question was asked if the co-op directors and their supervisors in the sample generally agreed upon certain issues that were related and what degree of reliability existed in the responses to the related issue statements?

Factor Analysis and Test of Reliability

An exploratory factor analysis was performed on the responses to the issue statements by co-op directors and supervisors as a single responding group. Together, the n = 177 of co-op directors, and n = 133 of supervisors, constituted an n = 310 which was sufficiently large to complete a factor analysis on the responses to the 55 issue statements. The purpose of this statistical technique was to search for underlying commonalities in the issue statements, develop factor scales based on these commonalities, and test to see if there were significant differences on these factor scales as a function of differences in either school type or region and nature of the respondent.

Factor analysis was performed using a Burroughs B6800 computer and the Statistical Package for Social Sciences (SPSS) release 8, statistical program. The Varimax rotation procedure was selected to maximize the variance of the squared loadings for each column. Principal factoring without iteration (PA1) was selected because there were no assumptions made about the general structure of the variables. Missing data was not replaced by the variable mean for computation of factor scores. Factors with eigen values of 1.0 or greater were retained for interpretation and analysis.

To aid in the interpretation of the data, the raw factor loading patterns were orthogonally rotated (varimax procedure). Items which cross loaded on two or more factors were difficult

to interpret. Therefore if an item had a factor loading of >|.3| on two or more factors the issue statement was deleted. However, if the issue statement loaded considerably higher on one factor and had a minimal loading of >|.5| on the factor, the issue statement was retained to assure that no issue would be removed that may contribute to an understanding of the dimensionality sought through the factor analysis procedure. The process was then repeated for a total of six iterations of the factor analysis procedure.

On the sixth and final iteration factor analysis was performed to confirm the stability of the factors using 25 issues resulting in a solution of seven factors with three issues which loaded on two factors with a factor score of .3 or greater. However, the principle factor score for each of the three issues exceeded .6 with the second loading not exceeding .32. It was believed that the three issues should be retained for reliability testing.

A test of reliability was performed using Cronbach's Alpha to determine the internal consistency of the issues comprising the solutions for the seven factors as suggested by Nunnally (1967). An alpha coefficient of .5 or higher was used for the criteria of including factors for consideration in the experimental construct of related issue dimensions (factor scales).

The resulting test of reliability yielded alpha coefficients as shown in Table 9.

Table 9. Factor alpha coefficients

Factor	Alpha coefficient
1	.888
2	.795
3	.687
4	.708
5	.450*
6	.518
7	.374*

*Coefficients below criterion of .5

Five of the seven derived factor scales appeared to reach acceptable levels of internal consistency. The exploratory search for dimensions that the respondents effectively agree upon was considered successful by the researcher. Table 10 shows the factor scale number, the generic title assigned each factor scale by the researcher, and the issues comprising each of the five factor scales that can be said to be reliable from the 310 responses by co-op directors and their supervisors, and the factor score for each issue.

Table 10. Factor scales, A-E, issue statements, factor loadings and factor and issue mean

Issue No.	Issue Statement	Factor Loading	Factor and Issue Mean
Factor Scale (A)	Federal funding criteria, structure, and process		3.283
12.	The current proposal evaluation process followed by the United States Office of Education which allows outside readers to make the major funding decisions	.59380	3.455
19.	The impact of federal (Title VIII) funding in terms of the development and meaningful growth of cooperative education programs	.75483	3.707
31.	The best system of distributing federal funds so as to have the most meaningful impact on the development of cooperative education programs	.81163	3.733
32.	The extent to which the federally funded co-op training centers are responsive to the needs of new personnel moving into cooperative education	.72185	3.233
33.	The extent to which the federally funded co-op training centers are responsive to the needs of experienced personnel in the field	.72427	3.113
43.	The desirability of having more financial support from the federal level in cooperative education	.73716	3.477
47.	The five year limitation to Title VIII USOE funding for cooperative education programs	.75079	3.222
51.	The use by the USOE (United States Office of Education) of weighted criteria in the proposal process to determine who receives Title VIII funding	.75251	3.184

Table 10. Continued

Issue No.	Issue Statement	Factor Loading	Factor and Issue Mean
Factor Scale (B)	Academic credit and curriculum structure		3.838
28.	The desirability of offering academic credit for students' co-operative education experiences	.71368	3.950
29.	If academic credit is offered, determining the proper amount to be granted and the basis for assigning this credit	.80691	3.910
30.	Determining the proper amount of structure which should be built into students' co-op experience in order to insure that they have meaningful learning experiences	.70733	3.992
38.	If academic credit is granted for cooperative education, whether this credit should be used toward graduation, or as an add-on to the graduation requirements	.66390	3.711
Factor Scale (C)	Organizational placement and institutional integration		3.510
8.	The inclusion of the cooperative education professional staff in the faculty ranking, tenure, and promotion system	.66789	3.553
27.	The location of the cooperative education office in the institutional organizational structure. (Academic affairs/student personnel services)	.77142	3.541
49.	The level in the institutional administrative hierarchy where the person responsible for co-op should report	.72407	3.658

Table 10. Continued

Issue No.	Issue Statement	Factor Loading	Factor and Issue Mean
Factor Scale (D)	Coordination between two- and four-year colleges		3.341
17.	The problems associated with the transferability of cooperative education credit from the two-year college level to the four-year college or university level	.75697	3.474
24.	The extent to which cooperative education can serve the "older" and "second-degree" students who are expected to comprise an increasingly larger percentage of the college population	.54113	3.534
25.	The relationship which should exist between cooperative programs operated at the secondary school, community college/technical college, and four-year college levels	.75515	3.241
Factor Scale (E)	Faculty Involvement		3.400
1.	The extent to which regular faculty members with assignments in teaching and/or research can be effective serving as coordinators in the cooperative education program	.72597	3.571
42.	If faculty are actively involved in the coordination phase of the program, whether the cost of program operation is prohibitive to this involvement	.78313	3.365

Based upon the relatively high internal consistency demonstrated by the factor analysis and reliability procedures described above, a description of the five resulting factor scales was accomplished and assigned letter designations. Issues comprising each factor scale were treated as equally contributing to each factor scale and a single variable scale was constructed for each of the five factors by summing and averaging the responses to each scale. Descriptive statistics were computed on the newly created factor scales. Table 11 shows the means, standard deviations and rank order of means for each of these factor scales.

Table 11. Means, standard deviations, and rank of factor scales for co-op directors and their supervisors as a group

Factor Scale	Factor Scale Name	Mean	SD	Rank
A	Federal funding criteria, structure, and process	3.283	.934	5
B	Academic credit and curriculum structure	3.838	.856	1
C	Organizational placement and institutional integration	3.510	.926	2
D	Coordination between two- and four-year colleges	3.341	.935	4
E	Faculty involvement	3.400	.928	3

All of the five factor scales had mean scores which fell between (3) important, and (4) very important. The value of examining the five factor scales resides in the agreement of respondents concerning the issues comprising the factor scales. Thus, it can be stated that the co-op directors and their supervisors responding to the questionnaire perceived the area of academic credit and curriculum structure (Factor Scale B) as most important followed by organizational placement and institutional integration (Factor Scale C), and so on as shown in Table 11.

Purpose 3: To determine if differences exist between directors and their supervisors in terms of the perceptions of the importance of these critical issues

Differences Between Directors and Supervisors for the Factors

A T-test for differences among the issue statement means of the co-op directors and their supervisors was used to compare responses of each group in their perceptions of the importance of the five factor scales. The T-test was applied to each factor scale for the two respondent groups. The level of significance was set at .05.

A significant difference (.05 level) was found on only one of the five factor scales. A pooled variance estimate

tested the two-tailed probability level at .002 for factor scale C, Organizational Placement and Institutional Integration as shown in Table 12.

Table 12. Difference between co-op directors and their supervisors for factor C, found at the .05 level

Factor Scale	Factor Title	2-tailed Probability	T-Value	Director Mean	Director S/D	Supervisor Mean	Supervisor S/D
C	Organizational placement and institutional integration	.002	3.11	3.650	0.912	3.323	0.913

Co-op directors rated the importance of factor scale C as higher than did their supervisors.

Differences Between Directors and Supervisors on the Issues

A T-test for differences among the issue statement means of the co-op directors and their supervisors was used to compare responses of each group in their perceptions of the importance of each of the 55 issue statements. The T-test was applied to each issue for the two respondent groups. The level of significance was set at .05.

Table 13 shows the issues where significant differences existed between co-op directors and their supervisors by the computed 2-tailed probability, T-value, and the mean and standard deviation for both groups.

For all six issue statements where there was a statistical difference between groups, co-op directors perceived a higher importance of the issue than did their supervisors.

A coefficient of concordance was computed to determine the extent of agreement between the issue statement rankings by directors and supervisors (see Table 7). The formula used was taken from Ferguson, 1976, pp. 373-376, and is shown below along with the computed S value and coefficient of concordance for the ranked means:

$$S = \Sigma \left(R_j - \frac{\Sigma R_j}{N} \right)^2 = 52,146.99$$

$$\text{Coefficient of (W)} = \frac{12S}{M^2 (N^3 - N)} = \underline{\underline{.94}}$$

Purpose 4: To determine if differences exist between two- and four-year college directors in terms of the perception of the importance of the critical issues.

A T-test for differences among the issue statement means of the two-year college co-op directors and the four-year college directors was used to compare responses of each group in their perceptions of the importance of the five

factor scales. The T-test was applied to each factor scale for the two respondent groups. The level of significance was set at the .05 level.

Table 13. Differences between co-op directors and their supervisors on issue statements found at the .05 level

Issue No.	Issue Statement	2-Tailed Probability	T-Value	Co-op Director Mean	Co-op Director S/D	Supervisor Mean	Supervisor S/D
8.	The inclusion of the cooperative education professional staff in the faculty ranking, tenure, and promotion system.	.001	3.30	3.726	1.096	3.295	1.226
14.	The desirability of establishing national standards for the accountability of cooperative education programs.	.044	2.02	2.943	1.030	2.692	1.136
40.	The role played by the National Commission for Cooperative Education in terms of national leadership for cooperative education.	.023	2.29	3.121	1.119	2.832	1.046
46.	The quality of leadership provided by the United States Office of Education.	.032	2.15	3.276	1.175	2.977	1.229
49.	The level in the institutional administrative hierarchy where the person responsible for co-op should report.	.040	2.06	3.737	0.932	2.977	1.335
54.	The extent to which the alternating co-op calender affects curricular design and course scheduling.	.007	2.70	3.659	1.048	3.313	1.177

A significant difference existed between two-year college co-op directors and four-year college directors on three of the five factor scales. Table 14 shows the computed 2-tailed probability, T-value, and the mean and standard deviation for both groups where statistically significant differences existed on the three factor scales.

Table 14. Differences between co-op directors responses to factors at two-year and four-year colleges found at the .05 level

Factor Scale	Factor Title	2-Tailed Probability	T Value	Two-year Colleges Mean	Two-year Colleges S/D	Four-year Colleges Mean	Four-year Colleges S/D
B	Academic credit & curriculum structure	.017	2.40	3.965	.777	3.732	.906
D	Coordination between two- and four-year colleges	.000	5.48	3.641	.802	3.091	.966
E	Faculty Involvement	.017	2.39	3.536	.861	3.287	.968

As can be seen in Table 14, the two-year college directors rated the importance of the three factor scales significantly higher than the four-year college directors.

A T-test for differences among the issue statement means of the co-op directors responses at two-year and four-year colleges was used to compare the directors at each type of institution. The T-test was applied to each issue statement for the two-year college directors and the four-year college directors. The level of significance was set at the .05 level.

Table 15 shows the issues where significant differences existed between co-op directors and two-year and four-year colleges by the computed 2-tailed probability, T-value and the mean and standard deviation for both groups where statistically significant differences existed on 15 of the issues. (This is considerably more differences than would be expected by chance.)

Issue statement means for the two-year college directors exceeded four-year college directors in 13 of the 15 statistically significant differences between the two groups. On issue 21 and issue 54, four-year college directors rated the two issues as more important than did two-year college directors.

Table 15. Differences between co-op directors responses to issues at two-year and four-year colleges found at the .05 level

Issue No.	Issue Statement	2-Tailed Probability	T-Value	Two-year College Mean	Two-year College S/D	Four-year College Mean	Four-year College S/D
1.	The extent to which regular faculty members with assignments in teaching and/or research can be effective serving as coordinators in the cooperative education program.	.000	5.19	3.934	.929	3.152	1.034
8.	The inclusion of the cooperative education professional staff in the faculty ranking, tenure, and promotion system.	.019	2.38	3.947	.992	3.556	1.145
11.	The impact of state and federal employment regulations on the development and implementation of cooperative education programs.	.005	2.84	3.707	.897	3.303	.952
16.	The desirability of defining cooperative education to include experiential education, internship programs, field education, etc.	.007	2.71	3.540	1.160	3.020	1.325
17.	The problems associated with the transferability of cooperative education credit from the two-year college level to the four-year college or university level.	.000	6.32	3.961	.901	2.980	1.152
21.	The extent to which the cooperative education office should be responsible for the majority of the student placements in the cooperative education program. (Student developed versus Co-op Office developed positions)	.022	-2.31	3.158	1.046	3.516	.980

Table 15. Continued

Issue No.	Issue Statement	2-Tailed Probability	T-Value	Two-year College Mean	Two-year College S/D	Four-year College Mean	Four-year College S/D
24.	The extent to which cooperative education can serve the "older" and "second-degree" students who are expected to comprise an increasingly larger percentage of the college population.	.037	2.10	3.693	.972	3.364	1.064
25.	The relationship which should exist between cooperative programs operated at the secondary school, community college/technical college, and four-year college levels.	.001	3.48	3.540	1.051	2.980	1.059
28.	The desirability of offering academic credit for students' cooperative education experiences.	.002	3.10	4.263	.822	3.808	1.122
30.	Determining the proper amount of structure which should be built into students' co-op experience in order to insure that they have meaningful learning experiences.	.040	2.07	4.173	.685	3.950	.72
38.	If academic credit is granted for cooperative education, whether this credit should be used toward graduation, or as an add-on to the graduation requirements.	.008	2.70	4.013	.872	3.586	1.221
45.	The use of FTE's (full-time equivalent students) as an internal funding source for cooperative education.	.001	3.35	3.827	1.095	3.258	1.111
52.	The extent to which cooperative education is accepted as a valid mode of study, on par with academic study.	.002	3.16	4.355	.687	3.939	1.048

Table 15. Continued

Issue No.	Issue Statement	2-Tailed Probability	T-Value	Two-year College Mean	Two-year College S/D	Four-year College Mean	Four-year College S/D
53.	The extent to which nonpaid volunteer work experiences should be considered as part of cooperative education.	.013	2.52	3.467	1.095	3.010	1.249
54.	The extent to which the alternating co-op calender affects curricular design and course scheduling.	.014	-2.50	3.432	1.124	3.828	.959

Purpose 5: To determine if differences exist between directors among the six regions in the United States in their perception of the importance of the critical issues.

The one-way analysis of variance (ANOVA) among the issue statement means of the co-op directors in the six regions was used to determine if differences in the perception of the importance of each of the five factor scales existed. The analysis of variance was applied to each of the five factor scales for the respondent groups from the six regions in the United States. Where significant differences at the .05 level appeared, the Tukey test was used to locate the pair or pairs of regions that accounted for the difference or differences.

One factor scale was found to be significantly different among the regions. As Table 16 shows, factor scale D, Coordination Between Two- and Four-Year Colleges, had an F-ratio of 2.25 with probability of .0494. The Tukey test of significance at the .05 level identified the difference to exist between region 3 (Northwest) and region 5 (Midwest).

Table 16. Differences in co-op directors responses to factors between two- and four-year colleges among the six regions in the United States

Factor Scale	Factor Title	F-Ratio	F-Probability
D	Coordination between two- and four-year colleges	2.250	0.0499

Test for Significant Differences

Means

Region 1	Region 2	Region 3	Region 4	Region 5	Region 6
		3.708	⟶	3.134	

*Region 1 = Northeast, Region 2 = Southeast, Region 3 = Northwest, Region 4 = East Central, Region 5 = Midwest, Region 6 = Western

Additionally, a one-way analysis of variance (ANOVA) among the issue statement means of the co-op directors in the six regions was used to determine if differences in the perception of the importance of the issues existed. The analysis of variance was applied to each of the 55 issue statements for the respondent groups from the six regions in the United States. Where significant differences at the .05 level appeared, the Tukey test was used to locate the pair or pairs of regions that accounted for the difference or differences.

As Table 17 shows, there were nine issues, of the 55 issue statements, that were found to have statistically significant differences among regions. Table 17 shows the F-ratio, the probability of the derived F-ratio, and the means for regions where tests revealed significant differences.

Table 17. Differences between co-op directors responses to issues in the six geographical regions found at the .05 level

Issue No.	Issue Statement	F-Ratio	F-Probability	Test for Significant Differences Means: Region 1	Region 2	Region 3	Region 4	Region 5	Region 6
15.	The role played by cooperative education in serving the needs of the socially and economically disadvantaged student.	2.586	.0278	4.000 →	3.148				
20.	The extent to which cooperative education is a viable instructional methodology for use in graduate programs.	2.539	.0304			2.412 ←	3.364		
21.	The extent to which the cooperative education office should be responsible for the majority of the student placements in the cooperative education program (Student developed versus Co-op Office developed positions).	4.476	.0007	3.826 ——→	2.882	← ——	3.712		
27.	The location of the cooperative education office in the institutional organizational structure. (Academic affairs/student personnel services.)	3.071	.0111		3.185	← ——	4.206		
38.	If academic credit is granted for cooperative education, whether this credit should be used toward graduation, or as an add-on to the graduation requirements.	3.333	.0068				3.415 ←	4.333	

Table 17. Continued

Issue No.	Issue Statement	F-Ratio	F-Probability	Test for Significant Differences Means: Region 1	Region 2	Region 3	Region 4	Region 5	Region 6
47.	The five year limitation to Title VIII USOE funding for cooperative education programs.	2.220*	.0546				3.765 ——→		2.700
48.	Developing cooperative education programs which can become cost-effective in the financial structure of the institution.	2.407	.0387	The Tukey test did not find any two groups significantly different at the .05 level					
49.	The level in the institutional administrative hierarchy where the person responsible for co-op should report.	2.410	.0385			3.296 ←——			4.029
54.	The extent to which the alternating co-op calendar affects curricular design and course scheduling.	2.348	.0432			3.185 ←——			4.000

*Issue 47 did not have a significant F-ratio, however the probability was very near .05, and the Tukey test did locate a significant difference between region 4 and 6.

**Region 1 = Northeast, Region 2 = Southeast, Region 3 = Northwest, Region 4 = East Central, Region 5 = Midwest, Region 6 = Western.

Conclusions and Recommendations

A comprehensive review of the cooperative education literature resulted in the identification of a large number of critical issues facing cooperative education personnel in institutions of higher education in the United States. The lack of research concerning the collective identification of, and the perceived importance of, the issues was the purpose of this study. The findings of this study should add to the growing body of knowledge concerning the issues and should provide a focus for the cooperative education community in addressing the issues.

The second section of this report presented the characteristics of the directors in the sample, and the major findings according to the purposes stated. This section will present the conclusions and recommendations based upon these characteristics and findings.

Characteristics of the Directors in the Sample

The majority of the items on the directors' questionnaire related to identifying the respondents characteristics were descriptive in nature and did not, by design, lead to conclusions and recommendations (see Table 3-6). The findings for some of the purposes did, however, imply conclusions and/or recommendations based on rather obvious assumptions. These conclusions and recommendations are identified below.

1. The majority (85.2 percent) of directors responding had more than one year of experience in their current position in cooperative education (see Table 3). This suggests that a significant majority of the respondents had an experiential basis upon which to evaluate the importance of the 55 issue statements.

2. The majority (74.6 percent) of cooperative education directors were men (see Table 4). The minority proportion of female directors in the sample indicates that the recruitment of women into administrative positions in cooperative education should be given a higher priority.

3. The predominant age of directors (48.2 percent) is between 33 and 46 years of age and a large proportion (98.9 percent) is 26 years of age or more (see Table 5). This suggests a relatively mature group of directors. Combined with the experience in position (see 1 above), the frame of reference of most of the respondents is from a broad experience, and adds to the credibility of the results of this study.

<u>Purpose 1: To identify the critical issues facing higher education cooperative education as perceived by cooperative education directors</u>

This purpose was primarily descriptive in nature and resulted in the rank ordering of the issue statement means as perceived by directors and supervisors. A large proportion of the issue statements were perceived as important to critical by both groups.

From the directors responses there were six issue statement means which exceeded 4.0 (very important), and five issue statement means which exceeded a value of 4.0 for the supervisors responses. The most important issue statements common to both groups are noted below:

Statement Number	Statement	Means	
		Directors	Supervisors
12	Maintaining the quality of cooperative education work assignments with an increasing number of institutions and students participating	4.011	4.038
13	The best techniques of developing institutional commitment in terms of administrative, faculty, staff, and financial support	4.200	4.046
48	Developing cooperative education programs which can become cost-effective in the financial structure of the institution	4.006	4.076

Issue 12 related to providing quality work stations with increasing numbers of cooperative education students being placed. In some areas where a number of institutions are geographically in close proximity, serious problems of a sufficient number of adequate work stations may be limited by

the nature of the local economy. As this problem increases, "long distant" co-op placements will increase, adding to financial and logistical problems of co-op personnel. The long distance issue, number 10, mean rating of 3.412 and 3.5 respectively can be expected to be a future trend and become a serious issue for some institutions. It is recommended that long range planning for this issue be addressed by those program directors who have local economic conditions which could increase "long-distance" placements.

A number of alternatives are available, which may include some of the following:

1. A decision to establish a policy of NO "long-distance" co-op placements.
2. Restricting the size of co-op programs by increasing admittance requirements, or other policy changes.
3. Developing a regional system or consortium of institutions to share "long-distance" coordination to minimize distances and cost of coordination.

It is recommended that, alternative three, noted above, be strongly considered in the planning process. Regional, and even national coordination among cooperative education programs has the potential to improve articulation among members of the cooperative education community.

Related to the "long-distance" placement was issue number 48, which addressed the problem of developing cost-effective methods for cooperative education program operation. Changes in federal funding policies are seen by many of the respondents (ref. factor A, Table 10) as requiring innovative management to survive. Programs that are not cost-effective in the future may be dropped by their institution. Efforts should be made by the cooperative education community to tie the costs of co-op program operation to the student credit hour generation process. In this fashion, with reasonable program enrollments, cooperative education can establish a strong financial basis on which to survive in future years. Furthermore, cooperative education directors should emphasize the overall institutional recruitment value of cooperative education as the higher education community faces lower enrollments in the 1980s.

Issue number 13 continues to be a critical factor in the successful integration of cooperative education within an institution. Obtaining the support of the various groups within the institutions community appears to be an issue for some time to come. It is recommended that program directors continue to emphasize public relations tasks within their respective institutions. Cooperative education training centers should continue to refine strategies and provide assistance in training directors to better obtain support for co-op from administration, faculty, and staff.

Purpose 2: To determine the relative importance of these issues as perceived by cooperative education directors and their supervisors.

The use of factor analysis has provided a clear description of the related issues upon which there is generally common agreement by directors and supervisors nation-wide.

Factor scale B, Academic Credit and Curriculum Structure had the highest mean ranking of the five factor scales (3.838). The why, and how of awarding and applying cooperative education credit is a very important issue which has emerged in importance with the relatively recent trend toward the awarding of academic credit for successful cooperative education experience. Dr. James W. Wilson addressed this issue concerning cooperative education as an organization of learning experiences not unlike any other educational process (Wilson, 1978). It is recommended that decisions regarding the awarding of academic credit and the credit contribution toward graduation be made in light of the educational value achieved by the co-op student.

Factor scale C, Organizational Placement and Institutional Integration had the second highest mean ranking of the five factor scales (3.510). This factor scale appears to be an issue of "where does co-op belong" organizationally in the institution. There is some relationship to factor scale B in that co-op not organizationally placed and/or accepted by the academic organization has a credibility

problem of being recognized as to its educational merit. It is recommended that further research be conducted concerning organizational placement, academic credit, and program outcomes. This kind of research can provide information that would assist in organizational placement decisions.

Factor Scale E, Faculty Involvement had the third highest mean ranking of the five factor scales (3.400). The two issues comprising this factor scale involved the assignment of coordination activities with teaching and/or research and the cost effectiveness of such involvement by the faculty. Several studies have documented the benefits and value of having teaching faculty interact with students and employers. The cost of such involvement as an issue suggests that cost effectiveness is of such central importance to administrators that qualitative benefits may have difficulty in competing with budgetary considerations. In cases where administrators are using cost effectiveness as a major element in decision-making, it is recommended that co-op program directors review earlier studies and be prepared with documented evidence of the benefits of faculty involvement to inform and assist their administration in the decision-making process.

Furthermore, it is recommended that further research be conducted in the area of documented faculty benefits derived from participation in cooperative education.

Factor scale D, Coordination Between Two- and Four-Year Colleges had the fourth highest mean ranking of the five factor scales ($\bar{x}$ = 3.341). The articulation of co-operative education programs in terms of transfer credit and program components suggests that current problems exist in terms of the acceptability of co-op credit from two-year colleges by four-year institutions. The quality of program operation and its changing configuration to meet the needs of students who are "older" and with differing educational objectives suggests that future configurational problems face cooperative education. Combined, the issues comprising this factor scale present a challenge in the design of programs. This issue is not unique to cooperative education and is a factor being faced by all facets of institutions of higher education. It is recommended that cooperative education directors see that they are included in institutional planning for articulation and change. Co-op directors are in a unique position to take the lead in instituting such planning activities because of their close affiliation with students and the employment community.

The Cooperative Education Association and the National Commission for Cooperative Education may wish to explore possible ways in which to become involved in the vertical articulation between educational levels where cooperative education programs are in operation.

Factor scale A, Federal Funding Criteria, Structure, and Process had a mean ranking of last among the five factor scales ($\bar{x}$ = 3.283). However, the mean value was higher than important. As such, the directors and supervisors collectively view federal funding and involvement as a significant contributor to the success of cooperative education programs nationwide. It is interesting to note that issue statement number 31 had the highest factor loading (.81163). This suggests a high correlation among the respondents (directors and supervisors) and indicates that the system for allocation of federal funds to co-op may need to be improved to obtain more effective development of cooperative education programs. All of the issues comprising factor scale A had relatively high factor loadings related to the need for federal financial support for co-op and ways in which federal dollars can stretch further. The changing priorities in Title VIII funding have caused a decline in the number of cooperative education programs. Ineffective and poorly managed programs should not continue to waste taxpayer money. Potentially viable programs, however, may need support in terms of funding, personnel training, and advisement that they may not be able to obtain due to current federal policies. It is recommended that the cooperative education community become more involved with the process of planning at the federal level. Responsible input is needed by governmental administrators in terms of

improving the system of allocating funding to cooperative education programs, training centers, and for research.

Purpose 3: To determine if differences exist between directors and their supervisors in terms of the perceptions of the importance of these critical issues

Of the five factor scales, tests of differences revealed that one factor scale, Organizational Placement and Institutional Integration had differences between the co-op directors and their supervisors. Apparently co-op directors viewed this factor scale as more important than did their supervisors with a factor scale mean of 3.650 for directors as opposed to 3.323 for supervisors. While both means were considered important, an explanation of the directors higher ratings may be the concern and day-to-day closeness to co-op program operation of directors as opposed to their supervisors.

It is recommended that directors who rate this concern highly communicate their concern to their supervisors. A plan for more effective integration of cooperative education within the institution, where appropriate, should be developed.

Individual issues were examined for differences between directors and their supervisors. Only six issues, or 11 percent of the 55 issue statements were rated differently by the two groups. In all cases, co-op directors rated as

more important the six issues, than did their supervisors. Co-op directors familiarity and direct involvement in the co-op program would suggest the higher ratings on the six issues.

The high proportion of issues (89 percent) that exhibited no differences is further documented by the fact that the correlation between the directors and supervisor's mean ranking of the 55 issue statements was .94 coefficient of concordance. The reason for such high agreement may be the effective communication occurring between directors and their supervisors. For those directors who have good communications with their supervisor, it is recommended that such communication be continued. For directors whose communication links with their supervisors are weak and who believe their supervisors "just do not understand my problems," it is suggested that stronger communication methods be employed on a regular basis.

Purpose 4: To determine if differences exist between two- and four-year college directors in terms of the perception of the importance of the critical issues

Differences were readily apparent on three of the five factor scales for two- and four-year college directors. The mean value for each factor scale was higher for the two-year directors, indicating that they perceived the importance of

the three factor scales as more important than did the four-year directors.

Factor scale B, Academic Credit and Curriculum Structure, had a mean value of 3.965 for directors. The value is very nearly 4 (very important) and suggests that the design of the cooperative education experience and how credit for the experiences should be planned and implemented is perceived as more important at the two-year college level. The mean value of 3.732 on the same factor scale for the four-year college directors also indicates that the factor scale is important at the four-year college level. An explanation of the differences may be found in the historical development of cooperative education. Four-year institutions have been involved with cooperative education much longer than have two-year colleges. The rapid growth of the two-year college movement has occurred primarily in the past two decades. In conjunction with the growth of two-year colleges has been an expansion of curricular offerings due to the diverse nature of students being served by two-year colleges. Perhaps the academic credit and curriculum structure factor scale is perceived as more important because the factor scale as an issue is part of a larger issue facing all two-year colleges in the process of change.

Factor scale D, Coordination Between Two- and Four-Year Colleges, was significantly different with a mean value for the factor scale of 3.641 for two-year college directors

and 3.091 for four-year college directors. The problem of transferability of credit and integration of cooperative education experiences for students who complete a two-year program and want to continue with co-op at the four-year level is a continuing problem not unique to cooperative education. Articulation issues are complex involving curriculum, accreditation, and institutional philosophy. For cooperative education, it would appear that the articulation issue is part of a larger issue involving entire institutions.

Factor scale E, Faculty Involvement, was rated as more important by two-year college directors as opposed to four-year college directors on the same factor scale. It would appear that two-year college cooperative education programs may be affected more than four-year colleges by tight budgets. Also the nature of two-year college instructional staff and heavier teaching schedules may increase the problem of faculty serving as coordinators.

Examination of statistically significant differences on individual issue statements tends to confirm that generally two-year college directors rate the statements as more important than their four-year college counterparts. A general conclusion may be made relative to the comparative lack of history that two-year colleges have had with cooperative education. Differences in educational philosophy,

mission, and articulation problems would appear to add to the explanation of differences that exist.

It is recommended that cooperative education directors at two-year colleges make efforts to communicate with four-year college directors for the purpose of identifying the "real" articulation issues. Misperceptions of transfer problems can be clarified through face-to-face meetings and the substantive problems can be addressed. It is further recommended that state and regional cooperative education associations place more emphasis on the academic credit and curriculum structure factor to assist directors at both two- and four-year colleges to resolve their individual and collective problems.

Problem 5: To determine if differences exist between directors among the six regions in the United States in their perception of the importance of the critical issues

A statistically significant difference was found at the 0.5 level for Factor scale D between region 3 (Northwest) and region 5 (Midwest). Region 3 had a higher mean value for the factor scale of Coordination Between Two- and Four-Year Colleges. A possible explanation for the difference may be found in the number of two-year college directors responding from each region. There were seven two-year college directors who responded from region 3, whereas 18 two-year college directors responded from region 5. The difference may be an

artifact of sampling and not be of practical significance.

A more significant fact is that only one of five factor scales and, as Table 15 shows, only 10 of 55 issues were found to have regional differences among the mean responses to the issue statements. Where differences existed on ten of the issue statements, only one showed differences between more than two regions. (Issue 21 had differences between region 1 (Northeast) and region 3 (Northwest), and differences between region 5 (Midwest) and region 3 (Northwest). There existed no discernable pattern of differences between two particular regions. One might conclude that there is a high degree of agreement among directors within the six regions on the factors and issue statements.

It is recommended that agendas at state and regional cooperative education association meetings be planned so as to disseminate the information on cooperative education issues and the high degree of nationwide agreement concerning the importance of the issues.

A Final Statement

The primary purpose of this study has been to provide information, previously unavailable, relative to the critical issues facing cooperative education as perceived by cooperative education directors and their supervisors. The data collected on the characteristics of the sample shows a majority of directors are males, and most of the directors have several years of experience with cooperative education. These experienced directors lend considerable credance to the perceptions of the issue statements.

Approximately 90 percent of the issue statement means were perceived as important, very important, to critical, which suggests that there is a complex set of issues which must be addressed by cooperative education personnel if progress is to be accomplsihed. A collective effort should be made by the National Commission for Cooperative Education; Regional Training Centers; and state, regional, and national cooperative education associations to develop plans and strategies to effectively overcome the obstacles presented by the issues.

The information provided by this study can, and should, be a source for further research in a number of areas. The disproportionate amount of male and female directors in cooperative education can be compared to other educational

administration areas. The high agreement, nationally, on the five factor scale areas suggests that further research into the issues comprising each of the factor scales should be undertaken. Agreement on issues suggests a set of underlying problems which needs to be identified before effective decision-making can be undertaken.

The differences between two- and four-year college issue perceptions bear attention. While the number of differences was not large, the kind of factor scales and issues that were different indicate that there are fundamental differences in cooperative education programs which results in hindering rather than serving transfer students. A prime area of further research would be to identify regions or localities which have good and poor articulation of cooperative education curriculum and credits. Information should be sought concerning the common characteristics of successful and unsuccessful articulation programs.

In conclusion, the issues facing cooperative education have been identified and their importance measured. It remains for the cooperative education community to disseminate the information contained in this report and act to resolve the issues if cooperative education is to make progress in serving the educational and occupational needs of future students.

Summary of Recommended Further Research

1. To determine the causes of the low proportion of females in directors positions in cooperative education.

2. To identify planning elements which will increase the potential for success in effecting "long distance" co-op placements.

3. To identify methods that have successfully been employed for cost effectiveness in cooperative education programs.

4. To assess the contribution to program outcomes of co-op program placement within the institutional organization, and the value of academic credit.

5. To obtain documented evidence of the benefits derived as a result of faculty involvement in cooperative education.

6. To determine effective methods of articulating co-op programs between two- and four-year colleges.

7. To identify elements in the federal funding process which act as impediments to the development and strengthening of cooperative education.

8. To compile strategies which can effectively deal with the issues rated as more important in this study.

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APPENDICES

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DEPARTMENT OF
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APPENDIX A

COOPERATIVE EDUCATION RESEARCH QUESTIONNAIRE

During 1979-80 Utah State University will be conducting a national research study designed to identify and analyze the issues facing cooperative education in institutions of higher education in the United States. You have been selected to participate in this important study. The attached questionnaire contains 55 issue statements which have been determined through a review of the cooperative education literature and through a strenuous critique process with a panel of experts in the field of cooperative education.

Please read each of these statements carefully, and then rate the importance or criticalness of the issue from your perception. Since we will be comparing director's perceptions of criticalness of issues with their supervisors, we are asking that you supply us with the name of your immediate supervisor. Your supervisor will then receive a similar questionnaire.

Please take a few minutes from your busy schedule to complete this important questionnaire. When you have finished, please return the completed questionnaire in the stamped, self-addressed envelope provided.

I certainly appreciate your assistance in this important matter and look forward to your response.

Thanks!

Bill Stull

WILLIAM A. STULL
COOPERATIVE EDUCATION RESEARCH DIRECTOR

COOPERATIVE EDUCATION

ISSUES RESEARCH PROJECT

Director's Questionnaire

Part A--Background Information

1. What is your exact title? _____

2. How many years have you served in your present position? (please circle one)

   a. Less than 1 year b. 1-3 years c. 4-6 years d. 7-9 years e. 10 years or more

3. Sex (please circle one)

   a. female b. male

4. What is your age? (please circle one)

   a. 25 or under b. 26-32 c. 33-39 d. 40-46 e. 47-53 f. 54-60 g. 60 or above

5. Which of the following best describes your institution? (please circle one)

   a. two-year public college b. two-year private college c. four-year college or university

   d. four-year private college or university e. other (please specify)_____

6. What is the name and title of your immediate supervisor? _____
   name of supervisor

   _____
   title of supervisor

Part B--Issue Statements

Instructions: Listed below and on the next couple of pages are 55 issue statements which have been determined through a review of the cooperative education literature and through personal contact with professionals in the field. Additionally, these issue statements have been reviewed by a panel of experts in the field of cooperative education. Please read each issue statement carefully and then, on the right of each statement, indicate the criticalness or importance of the issue. Please utilize the response category given below.

1. No importance
2. Little importance
3. Important
4. Very important
5. Critical

Issue Statement	Importance of Issue
1. The extent to which regular faculty members with assignments in teaching and/or research can be effective serving as coordinators in the cooperative education program.	1 2 3 4 5
2. The current proposal evaluation process followed by the United States Office of Education which allows outside readers to make the major funding decisions.	1 2 3 4 5
3. The trend towards the merger of cooperative education and placement services in colleges and universities.	1 2 3 4 5
4. The extent to which the degree of co-op program centralization or decentralization impacts on the development of viable cooperative education programs.	1 2 3 4 5
5. The extent to which the philosophy of cooperative education integrates or conflicts with other educational philosophies of the institution.	1 2 3 4 5

1. No importance
2. Little importance
3. Important
4. Very important
5. Critical

Issue Statement	Importance of Issue
6. The role played by cooperative education in serving the needs of the physically handicapped student.	1 2 3 4 5
7. The responsibility of the college or university in preparing the co-op student for his or her initial cooperative education assignment.	1 2 3 4 5
8. The inclusion of the cooperative education professional staff in the faculty ranking, tenure, and promotion system.	1 2 3 4 5
9. The quantity and quality of research in the field of cooperative education.	1 2 3 4 5
10. The best methods of coordination, and the frequency of employer visitations necessary for a "long distance" cooperative education program.	1 2 3 4 5
11. The impact of state and federal employment regulations on the development and implementation of cooperative education programs.	1 2 3 4 5
12. Maintaining the quality of cooperative education work assignments with an increasing number of institutions and students participating.	1 2 3 4 5
13. The best techniques of developing institutional commitment in terms of administrative, faculty, staff, and financial support.	1 2 3 4 5
14. The desirability of establishing national standards for the accountability of cooperative education programs.	1 2 3 4 5
15. The role played by cooperative education in serving the needs of the socially and economically disadvantaged student.	1 2 3 4 5
16. The desirability of defining cooperative education to include experiential education, internship programs, field education, etc.	1 2 3 4 5
17. The problems associated with the transferability of cooperative education credit from the two-year college level to the four-year college or university level.	1 2 3 4 5
18. The extent to which cooperative education is a viable instructional strategy for use in liberal arts and other non-technical programs.	1 2 3 4 5
19. The impact of federal (Title VIII) funding in terms of the development and meaningful growth of cooperative education programs.	1 2 3 4 5
20. The extent to which cooperative education is a viable instructional methodology for use in graduate programs.	1 2 3 4 5
21. The extent to which the cooperative education office should be responsible for the majority of the student placements in the cooperative education program. (Student developed versus Co-op Office developed positions)	1 2 3 4 5
22. The extent to which the high turn-over of cooperative education personnel has impact on the success of cooperative education programs.	1 2 3 4 5
23. The desirability of training and certifying selected individuals who would be available to evaluate cooperative education programs.	1 2 3 4 5
24. The extent to which cooperative education can serve the "older" and "second-degree" students who are expected to comprise an increasingly larger percentage of the college population.	1 2 3 4 5
25. The relationship which should exist between cooperative programs operated at the secondary school, community college/technical college, and four-year college levels.	1 2 3 4 5
26. The extent to which cooperative education should be limited to those students who have definitive career plans or open to all regardless of their status in the career development process.	1 2 3 4 5

1. No importance
2. Little importance
3. Important
4. Very important
5. Critical

	Issue Statement	Importance of Issue
27.	The location of the cooperative education office in the institutional organizational structure. (Academic affairs/student personnel services)	1 2 3 4 5
28.	The desirability of offering academic credit for students' cooperative education experiences.	1 2 3 4 5
29.	If academic credit is offered, determining the proper amount to be granted and the basis for assigning this credit.	1 2 3 4 5
30.	Determining the proper amount of structure which should be built into students' co-op experience in order to insure that they have meaningful learning experiences.	1 2 3 4 5
31.	The best system of distributing federal funds so as to have the most meaningful impact on the development of cooperative education programs.	1 2 3 4 5
32.	The extent to which the federally funded co-op training centers are responsive to the needs of new personnel moving into cooperative education.	1 2 3 4 5
33.	The extent to which the federally funded co-op training centers are responsive to the needs of experienced personnel in the field.	1 2 3 4 5
34.	The desirability of the college work study program and the cooperative education activity operating more closely together in the future.	1 2 3 4 5
35.	The role played by the CEA (Cooperative Education Association) as one of the national professional organizations for cooperative education personnel.	1 2 3 4 5
36.	The type of co-op calendars followed (i.e. alternating, extended day, field experience, parallel) by colleges and universities.	1 2 3 4 5
37.	The best techniques of improving the quality of individuals responsible for managing cooperative education programs.	1 2 3 4 5
38.	If academic credit is granted for cooperative education, whether this credit should be used toward graduation, or as an add-on to the graduation requirements.	1 2 3 4 5
39.	If faculty are involved, whether their load determination should be calculated as part of their regular load or as an overload, or on some other basis.	1 2 3 4 5
40.	The role played by the National Commission for Cooperative Education in terms of national leadership for cooperative education.	1 2 3 4 5
41.	The extent to which federal funding (Title VIII) should move to the large urban based institution.	1 2 3 4 5
42.	If faculty are actively involved in the coordination phase of the program, whether the cost of program operation is prohibitive to this involvement.	1 2 3 4 5
43.	The desirability of having more financial support from the federal level in cooperative education.	1 2 3 4 5
44.	The best techniques of internalizing and integrating cooperative education into the philosophies and curriculums of institutions of higher education.	1 2 3 4 5
45.	The use of FTE's (full-time equivalent students) as an internal funding source for cooperative education.	1 2 3 4 5
46.	The quality of leadership provided by the United States Office of Education.	1 2 3 4 5
47.	The five year limitation to Title VIII USOE funding for cooperative education programs.	1 2 3 4 5
48.	Developing cooperative education programs which can become cost-effective in the financial structure of the institution.	1 2 3 4 5
49.	The level in the institutional administrative hierachy where the person responsible for co-op should report.	1 2 3 4 5

1. No importance
2. Little importance
3. Important
4. Very important
5. Critical

	Issue Statement	Importance of Issue
50.	The desirability of institutions of higher education responding to the increased need for qualified cooperative education personnel by establishing bachelors' and graduate programs in cooperative education.	1 2 3 4 5
51.	The use by the USOE (United States Office of Education) of weighted criteria in the proposal process to determine who receives Title VIII funding.	1 2 3 4 5
52.	The extent to which cooperative education is accepted as a valid mode of study, on par with academic study.	1 2 3 4 5
53.	The extent to which non-paid volunteer work experiences should be considered as part of cooperative education.	1 2 3 4 5
54.	The extent to which the alternating co-op calendar affects curricular design and course scheduling.	1 2 3 4 5
55.	The extent to which there is clarity of role definition among directors, coordinators, and faculty in cooperative education programs.	1 2 3 4 5

Thank you very much for your assistance. Please return this questionnaire in the enclosed, self-addressed envelope.

UTAH STATE UNIVERSITY · LOGAN, UTAH 84322

COLLEGE OF BUSINESS
UMC 35

DEPARTMENT OF
BUSINESS EDUCATION
801-752-4100

APPENDIX B

SUPERVISOR'S QUESTIONNAIRE

During 1979-80, Utah State University will be conducting a national research study designed to identify and analyze the issues facing cooperative education in institutions of higher education in the United States.

On the original questionnaire, which was returned to us by your cooperative education director, you were identified as his/her immediate supervisor. Since we will be comparing your perceptions of the criticalness of the issues in cooperative education with your director (on a group basis) it is important that we receive your completed questionnaire.

The attached questionnaire contains 55 issue statements which have been determined through a review of the cooperative education literature and through a strenuous critique process with a panel of experts in the field of cooperative education.

Please take a few minutes from your busy schedule to complete this important questionnaire. Please read each of these statements carefully, and then rate the importance or criticalness of the issue from your perception. When you have finished, please return the completed questionnaire in the stamped, self-addressed envelope provided.

I certainly appreciate your assistance in this important matter and look forward to your response.

Thanks!

Bill Stull

WILLIAM A STULL
COOPERATIVE EDUCATION RESEARCH DIRECTOR

Enclosure

COOPERATIVE EDUCATION

ISSUES RESEARCH PROJECT

Supervisor's Questionnaire

Issue Statements

Instructions: Listed below and on the next couple of pages are 55 issue statements which have been determined through a review of the cooperative education literature and through personal contact with professionals in the field. Additionally, these issue statements have been reviewed by a panel of experts in the field of cooperative education. Please read each issue statement carefully and then, on the right of each statement, indicate the criticalness or importance of the issue. Please utilize the response category given below.

1. No importance
2. Little importance
3. Important
4. Very important
5. Critical

	Issue Statement	Importance of Issue
1.	The extent to which regular faculty members with assignments in teaching and/or research can be effective serving as coordinators in the cooperative education program.	1 2 3 4 5
2.	The current proposal evaluation process followed by the United States Office of Education which allows outside readers to make the major funding decisions.	1 2 3 4 5
3.	The trend towards the merger of cooperative education and placement services in colleges and universities.	1 2 3 4 5
4.	The extent to which the degree of co-op program centralization or decentralization impacts on the development of viable cooperative education programs.	1 2 3 4 5
5.	The extent to which the philosophy of cooperative education integrates or conflicts with other educational philosophies of the institution.	1 2 3 4 5
6.	The role played by cooperative education in serving the needs of the physically handicapped student.	1 2 3 4 5
7.	The responsibility of the college or university in preparing the co-op student for his or her initial cooperative education assignment.	1 2 3 4 5
8.	The inclusion of the cooperative education professional staff in the faculty ranking, tenure, and promotion system.	1 2 3 4 5
9.	The quantity and quality of research in the field of cooperative education.	1 2 3 4 5
10.	The best methods of coordination, and the frequency of employer visitations necessary for a "long distance" cooperative education program.	1 2 3 4 5
11.	The impact of state and federal employment regulations on the development and implementation of cooperative education programs.	1 2 3 4 5
12.	Maintaining the quality of cooperative education work assignments with an increasing number of institutions and students participating.	1 2 3 4 5
13.	The best techniques of developing institutional commitment in terms of administrative, faculty, staff, and financial support.	1 2 3 4 5
14.	The desirability of establishing national standards for the accountability of cooperative education programs.	1 2 3 4 5

1. No importance
2. Little importance
3. Important
4. Very important
5. Critical

	Issue Statement	Importance of Issue
15.	The role played by cooperative education in serving the needs of the socially and economically disadvantaged student.	1 2 3 4 5
16.	The desirability of defining cooperative education to include experiential education, internship programs, field education, etc.	1 2 3 4 5
17.	The problems associated with the transferability of cooperative education credit from the two-year college level to the four-year college or university level.	1 2 3 4 5
18.	The extent to which cooperative education is a viable instructional strategy for use in liberal arts and other non-technical programs.	1 2 3 4 5
19.	The impact of federal (Title VIII) funding in terms of the development and meaningful growth of cooperative education programs.	1 2 3 4 5
20.	The extent to which cooperative education is a viable instructional methodology for use in graduate programs.	1 2 3 4 5
21.	The extent to which the cooperative education office should be responsible for the majority of the student placements in the cooperative education program. (Student developed versus Co-op Office developed positions)	1 2 3 4 5
22.	The extent to which the high turn-over of cooperative education personnel has impact on the success of cooperative education programs.	1 2 3 4 5
23.	The desirability of training and certifying selected individuals who would be available to evaluate cooperative education programs.	1 2 3 4 5
24.	The extent to which cooperative education can serve the "older" and "second-degree" students who are expected to comprise an increasingly larger percentage of the college population.	1 2 3 4 5
25.	The relationship which should exist between cooperative programs operated at the secondary school, community college/technical college, and four-year college levels.	1 2 3 4 5
26.	The extent to which cooperative education should be limited to those students who have definitive career plans or open to all regardless of their status in the career development process.	1 2 3 4 5
27.	The location of the cooperative education office in the institutional organizational structure. (Academic affairs/student personnel services)	1 2 3 4 5
28.	The desirability of offering academic credit for students' cooperative education experiences.	1 2 3 4 5
29.	If academic credit is offered, determining the proper amount to be granted and the basis for assigning this credit.	1 2 3 4 5
30.	Determining the proper amount of structure which should be built into students' co-op experience in order to insure that they have meaningful learning experiences.	1 2 3 4 5
31.	The best system of distributing federal funds so as to have the most meaningful impact on the development of cooperative education programs.	1 2 3 4 5
32.	The extent to which the federally funded co-op training centers are responsive to the needs of new personnel moving into cooperative education.	1 2 3 4 5
33.	The extent to which the federally funded co-op training centers are responsive to the needs of experienced personnel in the field.	1 2 3 4 5
34.	The desirability of the college work study program and the cooperative education activity operating more closely together in the future.	1 2 3 4 5
35.	The role played by the CEA (Cooperative Education Association) as one of the national professional organizations for cooperative education personnel.	1 2 3 4 5

1. No importance
2. Little importance
3. Important
4. Very important
5. Critical

	Issue Statement	Importance of Issue
36.	The type of co-op calendars followed (i.e. alternating, extended day, field experience, parallel) by colleges and universities.	1 2 3 4 5
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55.	The extent to which there is clarity of role definition among directors, coordinators, and faculty in cooperative education programs.	1 2 3 4 5

Thank you very much for your assistance. Please return this questionnaire in the enclosed, self-addressed envelope.

APPENDIX C

Panel of Experts

Two-Year

Anne Gillis
Coordinator of Cooperative Education
Prince George's Community College
Largo, MD 20870

Jo Ann Hinton
Director of Cooperative Education
Villa Maria College
Buffalo, NY 14225

Thales A. Derrick (Tad)
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Robert Way
Director of Cooperative Education
Lane Community College
Eugene, OR 97405

Harry N. Heineman, Dean
Cooperative Education
LaGuardia Community College
3110 Thompson Ave
Long Island City, NY 11101

Dick Gritz
Dean of Community Services
Northeastern Junior College
Sterling, CO 80751

Four-Year

Paul Dube
Center for Cooperative Education
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Boston, MA 02115

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Stockton, CA 95211

Luther B. Epting
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Robert L. Parker
Chairman for Cooperative Education
Antioch College
Yellow Spring, OH 45387

Glenda Lentz
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Others

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Ralph Porter, Director
National Commission for Cooperative Ed.
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Boston, MA 92115

Don Robins
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Office of Personnel Management
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Cooperative Education Manager
Caterpillar Tractor Company
East Pedria, IL 61629

James C. Chambers
Director of Coop Training
Burroughs Corporation
Detroit, MI 48232

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